

Appl. No. 10/770,619  
Reply to Office Action of April 20, 2005

**REMARKS/ARGUMENTS**

Enclosed is form PTO-2038 in the sum of \$50.00 in payment of one additional dependent claim over 20.

Applicants hereby affirm the election of Group I, claims 1-16. New claims 20 and 21 are added dependent from claim 1 and are within the elected Group.

Other than the large number of provisional double patenting rejections which do not require response until some allowable subject matter is agreed upon, the rejections of the claims are based primarily on USP 5,537,137 to Held et al. The secondary art is cited primarily with respect to the silica particles, but does not appear to teach the importance of the ranges in new claims 20 and 21 (see specification, page 25, first paragraph).

The present invention is an ink jet recording medium comprising a support having thereon a porous layer. As claimed in claim 1, the porous layer contains micro particles of ground silica and a hydrophilic binder which is cross-linked with ionizing radiation. Claim 1 also requires that the micro particles have an average particle diameter of secondary particles as defined therein.

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Claim 6 similarly requires a support with a porous layer containing micro particles of silica and a hydrophilic binder being cross-linked with ionizing radiation.

Claim 8 specifies that the hydrophilic binder comprises a polymer which is cross-linked by exposing ionizing radiation to a hydrophilic polymer as defined therein.

Claims 9 and 10 also require that the polymer be cross-linked by exposing ionizing radiation to a hydrophilic polymer, but depend from other claims.

Claims 11-13 define the hydrophilic polymer further. Similar limitations can be found among the method claims which are non-elected.

Held et al. discloses a different type of ink jet recording sheet that bears a coating that contains at least one hydrophilic polymer and at least one reactive component. The hydrophilic polymer generally will be water-soluble in order that it may be applied to the supports using conventional aqueous coating techniques (see discussion in column 7). As described in column 7 at line 11, the support may be any usual support. The following discussion at column 7 refers to a cellulose and non-cellulose type substrates with the porous cellulose type

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substrates such as paper being preferred. Different types of paper are defined. Where non-porous substrates are described (starting around line 31 of column 7, polyester films, etc. are described. Coating components are then described and in column 8, at line 19, a reactive component is described as one which is to bind the ink to the media coating. Although there is mention of UV radiation or heat to start the reaction, the reaction is described as one in which the ink is bound to the substrate.

In order to combine references there must be some reason for the combination. In this case the type of media in Held et al. does not require the presence of silica. Silica is used in the porous type media of the present invention but not in the, probably, swelling type media of Held et al. In any case, there is no suggestion in Held et al. that silica should be added and one would not obviously use such an additive for the type of media in Held et al.

Furthermore, even if one did use silica, the UV (ionizing radiation) is only radiated on the medium after the printing in order to fix the ink on the medium. The present invention uses the UV radiation to make the media.

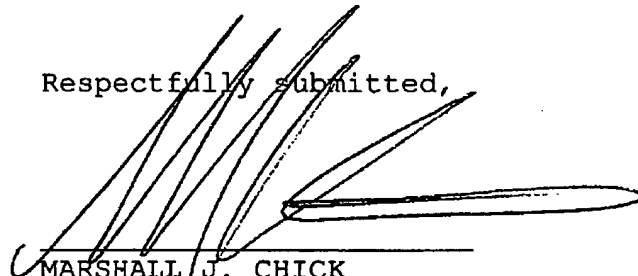
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In view of the above, it is submitted that the combination of references is only with hindsight of the present disclosure. There is no reason to introduce silica into the Held et al. device. Furthermore, even if the references are combined, the result does not show or suggest the present invention as claimed.

Withdrawal of the rejections and allowance of the application are therefore respectfully requested.

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Respectfully submitted,



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Enc. Form PTO-2038 authorizing the sum of \$50.00 in payment of one extra dependent claim over 20